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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/529,835	05/09/2000	CHRISTINE RONDEAU	05725.0577	6223

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EXAMINER	
ELHILO, EISA B	

ART UNIT	PAPER NUMBER
1751	14

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-14

Office Action Summary	Application No. 09/529,835	Applicant(s) RONDEAU, CHRISTINE	
	Examiner Eisa B Elhilo	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-8 and 32-77* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-8 and 32-77* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Claims 2-8 and 32-77 are pending in this application.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-8 and 32-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rondeau et al. (US' 6,001,135) in view of Casperson et al. (US 5,376,146) and further, in view Aaslyng et al. (WO 97/19998).

Rondeau (US' 135) teaches a compositions and process for dyeing human keratin fibers and especially the hair (see col. 2, lines 2-5). The composition comprises at least one cationic dye of the formula (**I**) in which D independently represents a nitrogen atom or the –CH group, R_1 and R_2 each independently represent a hydrogen atom, R_3 and R'_3 each independently represent a hydrogen or halogen atom, X^- represents an anion preferably selected from the chloride, methylsulphate and acetate and A represents a group selected from the structure A1 to A19 (see col. 2, lines 25-65, col. 3 and 4, lines 1-65), formula (**II**) in which R6 represents a hydrogen atom, R_7 represents a hydrogen atom, R_8 and R_9 each independently represents a hydrogen atom, X^- represents an anion preferably selected from chloride, methylsulphate and acetate and B represents a group selected from the structures B1 to B6 (see col. 5, lines 1-65), formula (**III**) and (**III'**) in which R_{13} represents a hydrogen atom, R_{14} represents a hydrogen atom, R_{15} represents a hydrogen atom, R_{16} and R_{17}, each independently represents a hydrogen atom, D_1 and

D_2 each independently represents a nitrogen atom, D_1 and D_2 simultaneously represent a –CH group and m=0, X^- represents an anion preferably selected from chloride, methylsulphate and acetate and E represents a group selected from the structures E1 to E8 (see col. 6, lines 1-65 and col. 7, lines 1-55), formula **G-N=N-J** which represents by the structure (**I**25) in which G_1 represents G wherein R_{27} is represents a hydrogen atom and all R_{24}, R_{25} and R_{26} represent C_1-C_4 and J_1 represents J wherein R_{33} is represents an $-NR_{35}R_{36}$ wherein R_{35} and R_{36} are chosen from a C_1-C_4 alkyl radical and R_{31} and R_{32} are represent hydrogen atoms (see col. 13, lines 60-65). The composition also comprises at least one cationic dye of the formulae **I**25 (see col. 13, lines 60-65), **I**1, **I**3 and **I**4 (see col. 11, lines 1-25), **I**30 (see col. 14, lines 30-35), **III**7 (see col. 19, lines 27-35), **III'2** (see col. 20, lines 60-65). The cationic direct dye present in a concentration ranging from 0.001 to 10% by the weight relative to the total weight of the composition (see col. 21, lines 25-31). The medium which is suitable for dyeing comprises water or of a mixture of water and at least one organic solvent in order to dissolve the compounds which would not be sufficiently soluble in water (see col. 22, lines 10-15). The pH of the dye composition ranges from 5 to 12 (see col. 21, lines 33-36). The dye composition also comprises from 0.0001 to 10% of oxidation bases such as para-phenylenediamine (see col. 21, lines 19-21), from 0.0001 to 5% of couplers (see col. 21, lines 60-67 and col. 22, lines 1-5), various adjuvant such as anionic, cationic, nonionic or amphoteric surfactants, organic thickeners, antioxidants, buffers, dispersing agents and packaging agents (see col. 22, lines 30-37). Rondeau also teaches a process for dyeing human keratin fibers. The process comprises the step of applying the dye composition to the fibers and is left on them for an exposure time after which the fibers are rinsed, optionally washed with shampoo, rinsed again and dried (see col. 22, lines 53-59). Rondeau further teaches

a multi-compartment dyeing "kit" or device or any other packaging system, a first compartment of which contains the composition that comprises the cationic direct dyes and optional second compartment contains the composition that comprises oxidation base compounds (see col. 23, lines 50-55). Further, the reference teaches dyeing composition comprising compounds of formula (1) with the combination of compounds formula (111'), which is a hetrocyclic dye, compounds (see col.2, lines 11-12). Rondeau further, teaches a hair dyeing composition comprising quaternary ammonium salts (col. 24, Example 2, line 55).

The instant claims differ from the reference by reciting a dyeing composition comprising specific species of quaternary ammonium compounds and oxidizing agents such as enzymes.

Casperson (US' 146) in analogous art teaches a hair dyeing composition comprising from 0.1 % to 5% of quaternary ammonium salts which represented by a formula similar to the claimed formula when in the reference's formula, R1, R2 and R3 represent lower alkyl groups containing 1 to 6 carbon atoms, R4 represents a long chain alkyl group containing from about 12 to 22 carbon atom and X is an anion normally a halide, preferably a chloride. Casperson also teaches quaternary ammonium salts such as cetyltrimethylammonium chloride (see col. 8, lines 35-60).

Aaslyng (WO' 998) teaches in other analogous art a hair dyeing composition comprising laccase enzyme as an oxidizing agent (see page 1, lines 6-9).

Therefore, in view of the teachings of the secondary references, one having ordinary skill in the art would have been motivated to modify the primary reference by using quaternary ammonium salts and enzymes to make such a composition. Such modification would be obvious because Casperson teaches that quaternary ammonium salts are used in dyeing composition as

hair conditioners since under the conditions employed for hair coloring they tend to neutralize the anionic charge normally present on the keratin of human hair (see col. 8, lines 63-66) and Aaslyng teaches that enzymes are useful for human hair when used as oxidizing agents (see page 2, lines 16-26), and, thus, an ordinary skill in the art would expect that the use of quaternary ammonium salts as taught by Casperson and enzymes as taught by aaslyng would be similarly useful and applicable to the analogous composition taught by Rondeau.

Response to Applicant's Arguments

2. Applicant's arguments filed July 26, 2002 have been fully considered but they are rendered moot in view of new ground of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B Elhilo whose telephone number is (703) 305-0217. The examiner can normally be reached on M - F (7:30-5:00) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (703) 308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elhilo
October 19, 2002

YOGENDRA N. GUPTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700